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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,408	10/21/2003	Nicolay Y. Kovarsky	008451/CMP/ECP	7371

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EXAMINER

WILKINS III, HARRY D

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/690,408	Applicant(s) KOVARSKY ET AL.	
	Examiner Harry D. Wilkins, III	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 36-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 36-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/26/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I in the reply filed on 26 May 2006 is acknowledged.

Status

2. The rejection grounds based on Wartman have been withdrawn in view of Applicant's amendments to the claims requiring a porous material disposed in the fluid path.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 9, 10, 36, 38-39 and 44-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Brandreth, III (US 6,280,617).

Brandreth, III anticipates the invention as claimed. Brandreth, III teaches (see figures 1 and 2, abstract, col. 2, line 53 to col. 3, line 28 and col. 3, lines 48-52) a cartridge for dispensing a chemical reagent including a vessel with an inlet and an outlet and at least one horizontal shelf contained inside the vessel, wherein the shelf was positioned to hold the chemical reagent and expose the chemical reagent to the solution flowing from the inlet to the outlet and a filter means disposed in the fluid path within the

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cartridge. The filter means prevents solid material from passing through, but allows the liquid to flow, thus, it would be considered to inherently be a porous material.

With respect to the recitation of a "plating solution", this limitation is considered to be related to the intended use of the claimed structure. It has been held that apparatus claims are limited by their structure, not by the intended use of the claimed structure.

See MPEP 2113.

Regarding claims 2 and 36, the shelf was impermeable to the solution.

Regarding claims 3 and 38, the cartridge included one shelf.

Regarding claims 4 and 39, there is a "headspace" disposed above the shelves.

Regarding claims 9 and 44, the shelf was a flat shelf.

Regarding claims 10 and 45, the porous material was a filter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5-7, 9, 10, 37, 40-43 and 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandreth, III (US 6,280,617).

Regarding claims 5 and 40, it would have been obvious to one of ordinary skill in the art to have adjusted the size of the headspace of the vessel to adapt it for use with other chemistries. See MPEP 2144.04.IV.A.

Regarding claims 6 and 41, the solution flows from the inlet to the outlet via the headspace disposed above each shelf.

Regarding claims 7 and 42, the solution is replenished with the chemical reagent by the vessel.

Regarding claims 8 and 43, the chemical reagent is not positively recited by the claims. Thus, since the cartridge of Brandreth, III was capable of holding one of the disclosed compounds, Brandreth, III teach this claim.

Regarding claims 9 and 44, as above, Brandreth, III teaches using a flat shelf. However, it would have been obvious to one of ordinary skill in the art to have utilized different shapes of shelves, such as a longitudinally grooved shelf or a tubular shelf in order to have ensured proper holding of the chemical reagent. See MPEP 2144.04.IV.B.

Regarding claims 10 and 45, the porous material was a filter.

Regarding claim 37, Brandreth, III fails to teach the composition of the shelf. However, it would have been obvious to one of ordinary skill in the art to have made the shelf from a material which was resistant to the chemical reagent and the water, such as plastics or stainless steel in order to prevent damage to the cartridge by the solution.

7. Claims 8 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandreth, III (US 6,280,617) in view of Ting et al (US 5,997,712).

Brandreth, III fails to teach that the composition of the chemical reagent.

Assuming that the chemical reagent held by the shelf is given patentable weight, the claims are still not patentable.

Ting et al teach an apparatus for dispensing a chemical reagent into a plating solution including a tank (11) for containing the plating solution and a vessel (13) in fluid communication with the tank, wherein the vessel had an inlet and an outlet. The chemical reagent included copper hydroxide or copper oxide.

Therefore, it would have been obvious to one of ordinary skill in the art to have used the dissolver of Brandreth, III for the dissolver of Ting et al because the dissolver of Brandreth, III provided a steady state concentration of dissolved chemical (see col. 2, lines 36-40).

Response to Arguments

8. Applicant's arguments with respect to claims 1 and 36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

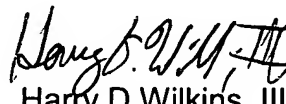
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry D. Wilkins, III whose telephone number is 571-272-1251. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Harry D Wilkins, III
Primary Examiner
Art Unit 1742

hdw